SAFETY DATA SHEET

1. Identification

Product Name: Sodium carbonate

Cat No.: BP357-1; S261-10; S263-1; S263-3; S263-10; S263-50; S263-50LC; S263-500; S263-500LC; S495-500

Synonyms: Disodium carbonate; Soda ash; Carbonic acid, disodium salt (Anhydrous/Crystalline/Powder/Calcined/Laboratory/Certified ACS/HPLC)

Recommended Use: Laboratory chemicals.

Uses advised against: No Information available

Details of the supplier of the safety data sheet:

Company: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number:
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) Identification

Classification:
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| Serious Eye Damage/Eye Irritation | Category 2 |

Label Elements

Signal Word: Warning

Hazard Statements:
Causes serious eye irritation

Precautionary Statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Keep only in original container

**Inhalation**
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell

**Eyes**
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

**Storage**
Store in a well-ventilated place. Keep container tightly closed
Store in a dry place

**Disposal**
Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**
None identified

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### 3. Composition / information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>497-19-8</td>
<td>&gt;95</td>
</tr>
</tbody>
</table>

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### 4. First-aid measures

**Eye Contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.

**Skin Contact**
Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Inhalation**
Move to fresh air. If breathing is difficult, give oxygen. If symptoms arise, call a physician.

**Ingestion**
Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Most important symptoms/effects**
None reasonably foreseeable.

**Notes to Physician**
Treat symptomatically

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### 5. Fire-fighting measures

**Unsuitable Extinguishing Media**
No information available

**Flash Point**
Not applicable

**Method -**
No information available

**Autoignition Temperature**
Not applicable

**Explosion Limits**
Upper: No data available
Lower: No data available

**Sensitivity to Mechanical Impact**
No information available

**Sensitivity to Static Discharge**
No information available

**Specific Hazards Arising from the Chemical**
Thermal decomposition can lead to release of irritating gases and vapors.

**Hazardous Combustion Products**
Sodium oxides

**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### NFPA

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 6. Accidental release measures

#### Personal Precautions
Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

#### Environmental Precautions
Should not be released into the environment. See Section 12 for additional ecological information.

### Methods for Containment and Clean-Up
Sweep up or vacuum up spillage and collect in suitable container for disposal.

### 7. Handling and storage

#### Handling
Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Avoid ingestion and inhalation. Wash hands before breaks and immediately after handling the product.

#### Storage
Keep containers tightly closed in a dry, cool and well-ventilated place.

### 8. Exposure controls / personal protection

#### Exposure Guidelines
This product does not contain any known or suspected reproductive hazards

#### Engineering Measures
Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

#### Personal Protective Equipment

<table>
<thead>
<tr>
<th>Eye/face Protection</th>
<th>Skin and body protection</th>
<th>Respiratory Protection</th>
<th>Hygiene Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tightly fitting safety goggles.</td>
<td>Long sleeved clothing.</td>
<td>Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.</td>
<td>Handle in accordance with good industrial hygiene and safety practice.</td>
</tr>
</tbody>
</table>

### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Appearance</th>
<th>Odor</th>
<th>Odor Threshold</th>
<th>pH</th>
<th>Melting Point/Range</th>
<th>Boiling Point/Range</th>
<th>Flash Point</th>
<th>Evaporation Rate</th>
<th>Flammability (solid.gas)</th>
<th>Flammability or explosive limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td>White</td>
<td>Odorless</td>
<td>No information available</td>
<td>11.3 @ 20°C (10 g/l aq.sol)</td>
<td>854 °C / 1569.2 °F</td>
<td>1600 °C / 2912 °F @ 760 mmHg</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not flammable</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Vapor Pressure: No information available
Vapor Density: Not applicable
Specific Gravity: 2.53
Bulk Density: 500-800 kg/m³
Solubility: Partly soluble in water
Partition coefficient; n-octanol/water: No data available
Autoignition Temperature: Not applicable
Decomposition Temperature: No information available
Viscosity: Not applicable
Molecular Formula: Na₂CO₃
Molecular Weight: 105.99

10. Stability and reactivity

Reactive Hazard: None known, based on information available
Stability: Stable under normal conditions.
Incompatible Materials: Strong oxidizing agents, Strong acids, Fluorine, Metals
Hazardous Decomposition Products: Sodium oxides
Hazardous Polymerization: Hazardous polymerization does not occur.
Hazardous Reactions: None under normal processing.

11. Toxicological information

Acute Toxicity

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>2800 mg/kg (Rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
<td>2.3 mg/l 2h (Rat)</td>
</tr>
</tbody>
</table>

Toxicologically Synergistic Products: No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Irritation: Irritating to eyes and skin
Sensitization: No information available
Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>IARC</th>
<th>NTP</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>497-19-8</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects: No information available
Reproductive Effects: No information available.
Developmental Effects: No information available.
Teratogenicity: No information available.
STOT - single exposure: None known
STOT - repeated exposure: None known
Aspiration hazard: No information available
12. Ecological information

Ecotoxicity
Do not empty into drains.

<table>
<thead>
<tr>
<th>Component</th>
<th>Freshwater Algae</th>
<th>Freshwater Fish</th>
<th>Microtox</th>
<th>Water Flea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>EC50: = 242 mg/L, 120h (Nitzschia)</td>
<td>Leponis macrochirus: LC50: 300 mg/L/96h Gambusia affinis: LC50: 740 mg/L/96h</td>
<td>-</td>
<td>EC50: = 265 mg/L, 48h (Daphnia magna)</td>
</tr>
</tbody>
</table>

Persistence and Degradability
Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation
No information available.

Mobility
Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT
Not regulated

TDG
Not regulated

IATA
Not regulated

IMDG/IMO
Not regulated

15. Regulatory information

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>IECSC</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>207-838-8</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)
Not applicable

SARA 313
Not applicable

SARA 311/312 Hazard Categories

Acute Health Hazard
Yes
Chronic Health Hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

CWA (Clean Water Act) Not applicable
Clean Air Act Not applicable
OSHA Occupational Safety and Health Administration Not applicable
CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals
U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations
Mexico - Grade No information available

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class D2B Toxic materials
E Corrosive material

16. Other information
Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 15-Oct-2009
Revision Date 08-Mar-2016
Print Date 08-Mar-2016
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

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End of SDS